

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

RECEIVED AW

JUN 2 2 2001

Technology Center 2100

Applicants: Vlad MITLIN, Richard G.C. WILLIAMS

Case: 3Com-72/1 (3292.TDC.US.P)

Serial No.: 09/741,636

Filed: December 20, 2000

Group Art Unit: 2184

Confirmation No.: 5636

Examiner:

Title: PERFORMANCE EVALUATION OF MULTICARRIER CHANNELS

COMMISSIONER FOR PATENTS Washington, D.C. 20231

S I R:

INFORMATION DISCLOSURE STATEMENT

The applicants respectfully request that the following references be considered in the examination of the above-identified application. A copy of each reference is enclosed.

United States Patents

Pate	ent Number	Inventor	Date Issued	<u>Class</u>
AA.	6,075,821	Kao et al	June 13, 2000	375/260
ÆВ.	6,072,779	Tzannes et al	June 6, 2000	370/252
41	6,064,692		May 16, 2000	375/219
/AD.	5,852,633	Levin et al	Dec. 22, 1998	375/260
√AE.	5,479,447	Chow et al	Dec. 26, 1995	375/260



Publications

- AF. D. Bertsekas et al, <u>Data Networks</u>, (©1992, Prentice Hall), pages 64-86 and 149-240.
- JAG. John A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", <u>IEEE</u>
 Communications Magazine, May 1990, pages 5-14.
- √ AH. Walter Y. Chen, <u>DSL</u>: <u>Simulation Techniques and</u>

 <u>Standards Development for Digital Subscriber Line</u>

 <u>Systems</u>, (©1998, MacMillan Technical Publishing),
 pages 465, 11, and 119-121.
 - AI. Peter S. Chow, "Bandwidth Optimized Digital
 Transmission Techniques for Spectrally Shaped Channels
 with Impulse Noise", Ph.D. thesis, Stanford
 University, May 1993, pages ii-187.
 - AJ. Chow et al, "A Practical Discrete Multitone Transceiver Loading Algorithm for Data Transmission over Spectrally Shaped Channels", IEEE Transactions on Communications, Vol. 43, No. 2/3/4, February/March/April 1995, pages 773-775.
 - √AK. N.G. de Bruijn, <u>Asymptotic Methods in Analysis</u>, (©1981, Dover Publications, Inc.), pages 22-23.
 - √AL. F.J. MacWilliams et al, Chapter 10, Section 10,

 "Reed-Solomon and Justesen Codes Decoding RS codes",

 The Theory of Error-Correcting Codes, (©1977, Elsevier Science), page 306.
 - √AM. V.S. Mitlin, Nonlinear Dynamics of Reservoir Mixtures, (©1993, CRC Press), pages 173-177.
 - AN. J. Proakis, "<u>Digital Communications</u>", McGraw-Hill,

 New York, 1995, pages 260-263, 278-282, 441, 464-67.
 - AO. ITU Recommendation G.992.1: Asymmetric Digital Subscriber

 Line (ADSL) Transceivers, Geneva, 1999, pages i-240.

RECO/ED

JUN 2 2 2001

Technology Center 2100

ITU Recommendation G.992.2: Splitterless Asymmetric

Digital Subscriber Line (ADSL) Transceivers, Geneva,
1999, pages i-165.

AQ. J Numerical Recipes in C: The Art of Scientific Computing, Cambridge, MA, 1992, pages 212-221.

REMARKS

Under rule 37 C.F.R. 1.98(a) (effective March 16, 1992), since all of the above-cited references are in the English language, the applicants submit that no specific comments are necessary for any of these.

For the Examiner's convenience, the applicants have attached a completed modified Form PTO/SB/08A&B form hereto.

Respectfully submitted,

June /5, 2001

Peter L. Michaelson, Attorney

Reg. No. 30,090 Customer No. 007265 (732) 530-6671

MICHAELSON & WALLACE Counselors at Law Parkway 109 Office Center 328 Newman Springs Road P.O. Box 8489 Red Bank, New Jersey 07701

CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited on June 15, 2001, with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

- Kirlindan

JUN 1 8 2001

RECEIVED

JUN 2 2 2001

Technology Center 2100

(3c72.1ids/ks/64)



type a plus sign (+) inside this box 💙

PTC/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Unber the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

3 Sheet 1 of

Complete if Known			
Application Number	09/741,636		
Filing Date	December 20, 2000		
First Named Inventor	Vlad MITLIN		
Group Art Unit	2184		
Examiner Name			
Attorney Docket Number	3Com-72/1(3292.TDC.US.P)		

	U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	U.S. Patent Docum Number (if kn	Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear or Class/Subclass		
	AA	6,075,821		Kao et al	06-13-2000			
	AB	6,072,779		Tzannes et al	06-06-2000			
	AC	6,064,692		Chow	05-16-2000			
	AD	5,852,633		Levin	12-22-1998	RECEIVED		
	ΑE	5,479,447		Chow et al	12-26-1995			
						JUN 2 2 2001		
						2001		
						Technology Center 2100		
 					 			
			-					
┝┈┼			\dashv		 			
					+			
-	-		$\vdash \dashv$					
					1			

	FOREIGN PATENT DOCUMENTS									
Examiner Initials	Cite	F	oreign Patent Do		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant			
	No.1	Office ³	Number ⁴	Kind Code ⁵ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Dited Document Passages or Relevant	T ₆		
								┷		
		ļ <u>.</u>						<u> </u>		
L		<u> </u>					·			
		ļ ļ						1_		
l		1 1		1 1				1		

Examiner	Date
Signature	Considered

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

elease type a plus sign (+) inside this box \Rightarrow

PTO/SB/08B (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Approved for use through 10/31/2002. OMB 0651-00
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMER
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMER
Trademark Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of Sheet

Complete if Known				
Application Number	09/741,636			
Filing Date	December 20, 2000			
First Named Inventor	Vlad MITLIN			
Group Art Unit	2184			
Examiner Name				
Attorney Docket Number	3Com-72/1(3292.TDC.US.P)			

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AF	D. Bertsekas et al, Data Networks, ([©] 1992, Prentice Hall), pages 64-86 and 149-240.	
	AG	John A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, May 1990, pages 5-14.	
	АН	Walter Y. Chen, DSL: Simulation Techniques and Standards Development for Digital Subscriber Line Systems, (*1998, MacMillan Technical Publishing), pages 465, 11, and 119-121.	
	ΑI	Peter S. Chow, "Bandwidth Optimized Digital Transmission Techniques for Spectrally Shaped Channels with Impulse Noise", Ph.D. thesis, Stanford University, May 1993, pages ii-187.	
	ΑJ	Chow et al, "A Practical Discrete Multitone Transceiver Loading Algorithm for Data Transmission over Spectrally Shaped Channels", IEEE Transactions on Communications, Vol. 43, No. 2/3/4, February/March/April 1995, pages 773-775.	
	AK	N.G. de Bruijn, Asymptotic Methods in Analysis, (©1981, Dover Publications, Inc.), pages 22-23.	
	AL	F.J. MacWilliams et al, Chapter 10, Section 10, "Reed-Solomon and Justesen Codes - Decoding RS codes", The Theory of Error-Correcting Codes, (©1977, Elsevier Science), page 306.	
_	АМ	V.S. Mitlin, Nonlinear Dynamics of Reservoir Mixtures, (©1993, CRC Press), pages 173-177.	
	AN	J. Proakis, "Digital Communications", McGraw-Hill, New York, 1995, pages 260-263, 278-282, 441, 464-67.	
	AO	ITU Recommendation G.992.1: Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva, 1999, pages i-240.	
	AP	ITU Recommendation G.992.2: Splitterless Asymmetric Digital Subscriber Line (ADSL) Transceivers, Geneva, 1999, pages i-165. RECEIVED JUN 2 2 2001	
		JUN 2.2.2001	

Examiner	Date	reunnology Center 2100
Signature	Conside	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

ase type a plus sign (+) inside this box -> | +

3

PTO/SB/08B (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERC

JUN 1 8 2001 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

Sheet

Examiner

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) of 3

Complete if Known				
Application Number	09/741,636			
Filing Date	December 20, 2000			
First Named Inventor	Vlad MITLIN			
Group Art Unit	-2184 Z133			
Examiner Name				
Attorney Docket Number 3Com-72/1(3292.TDC.US				

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
D	AQ	Numerical Recipes in C: The Art of Scientific Computing, Cambridge, MA, 1992, pages 212-221.	
		RECEIVED	
		JUN 2 2 2001	
·		Technology Center 2100	
			_
		-	
-			

Signature Considered *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Date

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.